

CRESTONE PEAK RESOURCES

ARAPAHOE COUNTY

SEC 35-T4S-R65W

STATE BIERSTADT 4-65 35-34 3BH

OWB

Design: FINAL SURVEY

Standard Survey Report

15 April, 2024

Project: ARAPAHOE COUNTY
Site: SEC 35-T4S-R65W
Well: STATE BIERSTADT 4-65 35-34 3BH
Wellbore: OWB
Design: FINAL SURVEY

PROJECT DETAILS: ARAPAHOE COUNTY
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone
System Datum: Mean Sea Level



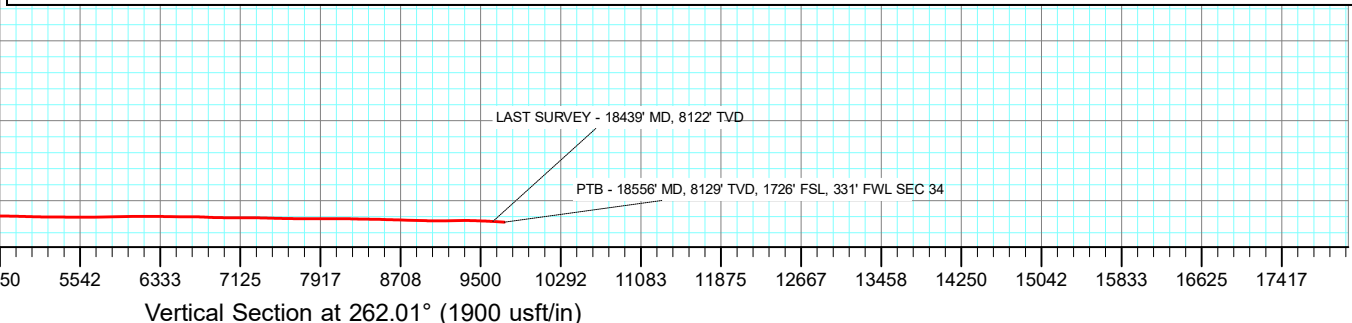
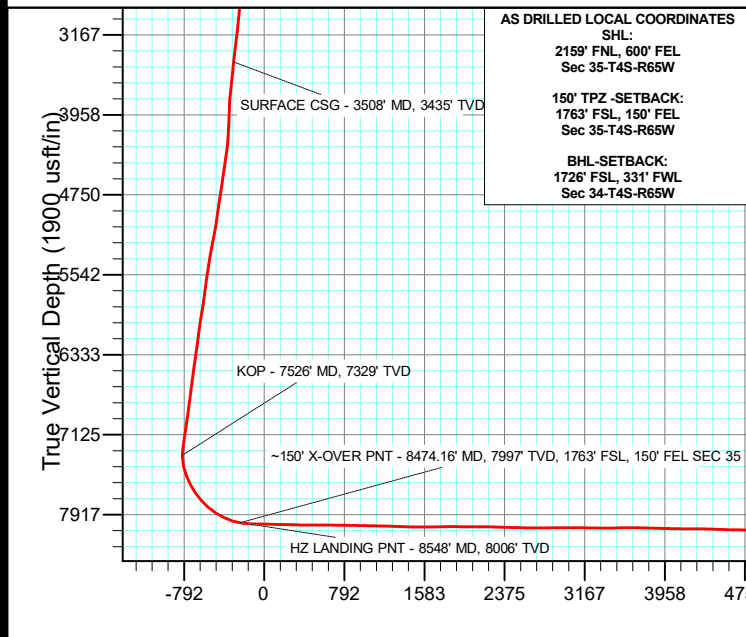
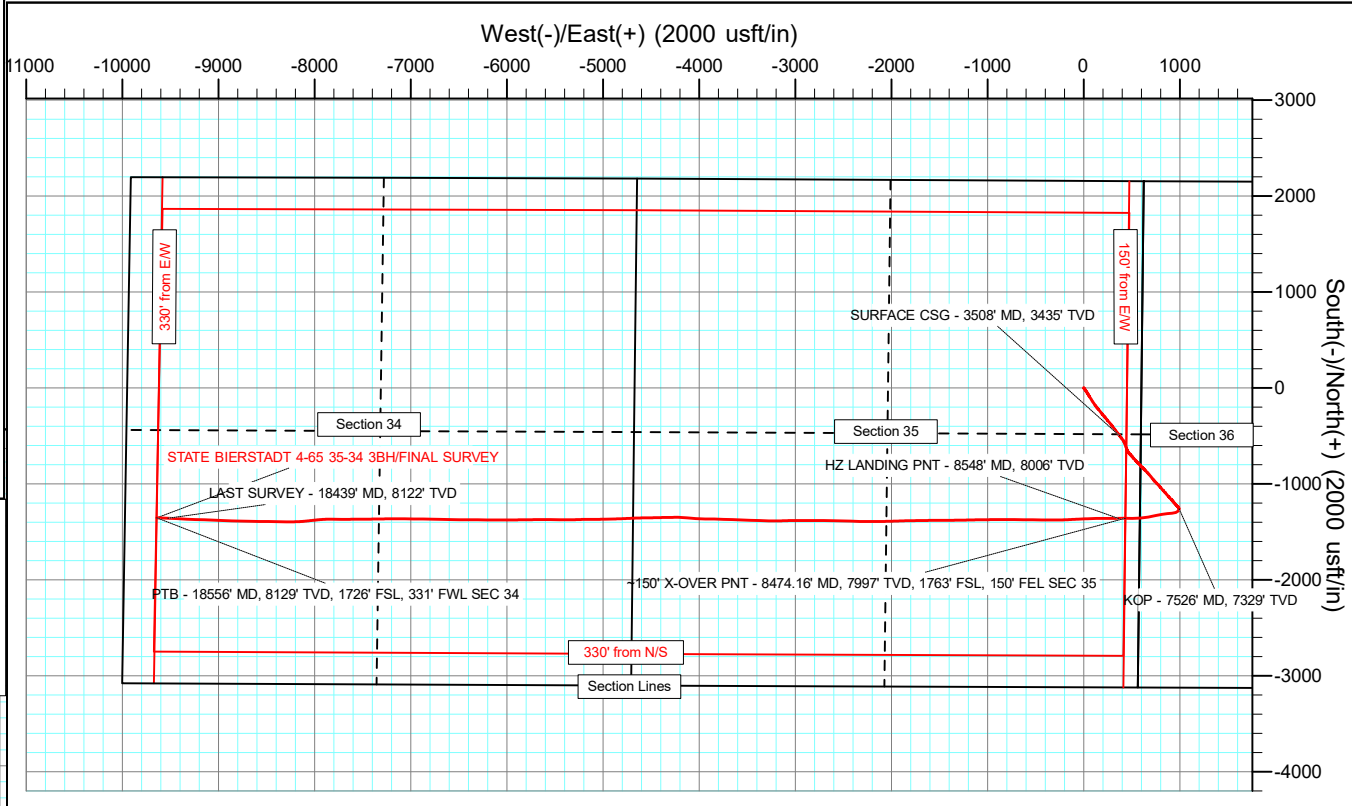
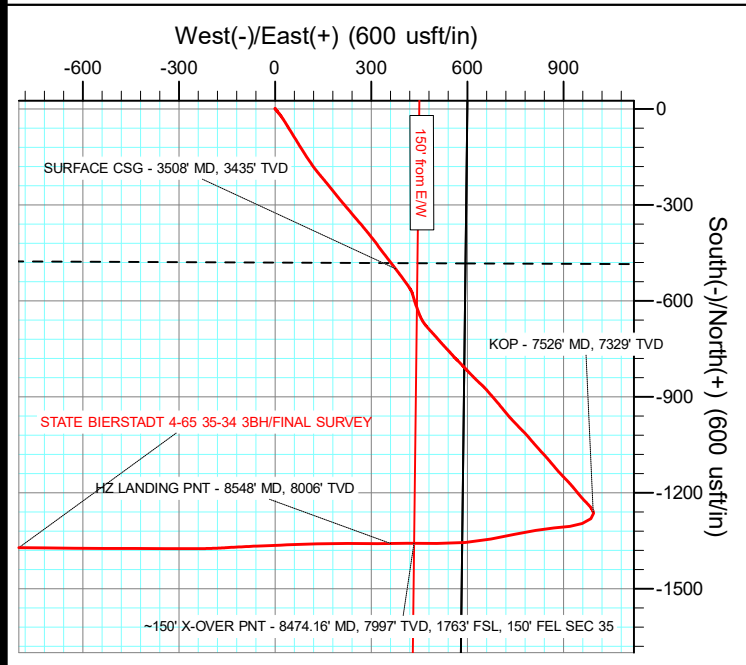
Azimuths to True North
Magnetic North: 7.42°
Magnetic Field
Strength: 51286.0nT
Dip Angle: 65.97°
Date: 2/29/2024
Model: IGRF2020

WELL DETAILS: STATE BIERSTADT 4-65 35-34 3BH

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1666978.53	3246495.91	39.661392°N	104.624451°W	

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
3508.00	12.05	142.52	3435.15	-499.11	375.37	-302.33	630.73	SURFACE CSG - 3508' MD, 3435' TVD
7526.00	10.60	162.73	7328.51	-1259.68	992.63	-807.84	1618.82	KOP - 7526' MD, 7329' TVD
8474.16	79.85	269.72	7997.38	-1357.76	433.60	-240.59	2206.81	~150' X-OVER PNT - 8474.16' MD, 7997' TVD, 1763' FSL, 150' FEL SEC 35
8548.00	86.06	269.58	8006.34	-1358.40	360.34	-167.96	2279.95	HZ LANDING PNT - 8548' MD, 8006' TVD
18439.00	86.83	271.85	8122.29	-1357.49	-9524.27	9620.50	12168.83	LAST SURVEY - 18439' MD, 8122' TVD
18556.00	86.83	271.85	8128.76	-1353.72	-9641.03	9735.60	12285.65	PTB - 18556' MD, 8129' TVD, 1726' FSL, 331' FWL SEC 34



AS DRILLED LOCAL COORDINATES
SHL:
2159' FNL, 600' FEL
Sec 35-T4S-R65W
150' TPZ -SETBACK:
1763' FSL, 150' FEL
Sec 35-T4S-R65W
BHL-SETBACK:
1726' FSL, 331' FWL
Sec 34-T4S-R65W

Civitas Resources

Survey Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well STATE BIERSTADT 4-65 35-34 3BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5895.00usft
Site:	SEC 35-T4S-R65W	MD Reference:	KB 25' @ 5895.00usft
Well:	STATE BIERSTADT 4-65 35-34 3BH	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDM

Project	ARAPAHOE COUNTY		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		Using geodetic scale factor

Site		SEC 35-T4S-R65W					
Site Position:		Northing:	1,666,501.66	usft	Latitude:	39.660067°N	
From:	Lat/Long	Easting:	3,247,094.88	usft	Longitude:	104.622340°W	
Position Uncertainty:	0.00	usft	Slot Radius:	13.200	in	Grid Convergence:	0.55 °

Well	STATE BIERSTADT 4-65 35-34 3BH					
Well Position	+N/-S	0.00 usft	Northing:	1,666,978.53 usft	Latitude:	39.661392°N
	+E/-W	0.00 usft	Easting:	3,246,495.92 usft	Longitude:	104.624451°W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	5,870.00 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	2/29/2024	7.42	65.97	51,286.04773031

Design	FINAL SURVEY				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00		262.01

Survey Program	Date	4/15/2024			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
209.00	3,422.00	SURFACE SURVEY (OWB)	MWD OWSG	OWSG MWD - Standard	
3,584.00	18,556.00	FINAL SURVEY (OWB)	MWD OWSG	OWSG MWD - Standard	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
209.00	0.84	19.82	208.99	1.44	0.52	-0.71	0.40	0.40	0.00	
299.00	0.04	307.28	298.99	2.08	0.72	-1.00	0.92	-0.89	-80.60	
390.00	0.35	276.74	389.99	2.13	0.42	-0.71	0.35	0.34	-33.56	
481.00	0.62	258.18	480.99	2.06	-0.34	0.05	0.34	0.30	-20.40	
575.00	1.64	147.62	574.97	0.82	-0.12	0.00	2.07	1.09	-117.62	
670.00	2.87	137.13	669.90	-2.07	2.23	-1.92	1.36	1.29	-11.04	
764.00	4.24	141.45	763.71	-6.51	5.99	-5.03	1.48	1.46	4.60	
860.00	5.97	140.30	859.33	-13.13	11.40	-9.46	1.81	1.80	-1.20	
955.00	8.18	143.61	953.60	-22.37	18.56	-15.27	2.36	2.33	3.48	

Civitas Resources

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Site:	SEC 35-T4S-R65W	MD Reference:	KB 25' @ 5895.00usft
Well:	STATE BIERSTADT 4-65 35-34 3BH	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDM

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,050.00	10.12	147.40	1,047.39	-34.84	27.07	-21.96	2.14	2.04	3.99
1,144.00	11.31	148.85	1,139.75	-49.69	36.29	-29.03	1.30	1.27	1.54
1,239.00	13.26	148.72	1,232.57	-66.97	46.76	-37.00	2.05	2.05	-0.14
1,334.00	15.20	147.75	1,324.65	-86.82	59.07	-46.42	2.06	2.04	-1.02
1,430.00	15.95	148.50	1,417.12	-108.71	72.68	-56.85	0.81	0.78	0.78
1,524.00	15.47	148.28	1,507.61	-130.39	86.01	-67.05	0.51	-0.51	-0.23
1,620.00	14.94	145.77	1,600.25	-151.51	99.71	-77.67	0.88	-0.55	-2.61
1,714.00	14.76	146.08	1,691.11	-171.46	113.21	-88.26	0.21	-0.19	0.33
1,810.00	14.27	141.93	1,784.05	-190.93	127.33	-99.54	1.20	-0.51	-4.32
1,905.00	13.12	139.78	1,876.35	-208.38	141.51	-111.16	1.32	-1.21	-2.26
1,999.00	14.32	140.61	1,967.66	-225.51	155.77	-122.91	1.29	1.28	0.88
2,093.00	14.10	140.92	2,058.79	-243.38	170.37	-134.87	0.25	-0.23	0.33
2,188.00	14.63	141.49	2,150.82	-261.75	185.14	-146.94	0.58	0.56	0.60
2,283.00	13.26	141.01	2,243.02	-279.61	199.46	-158.64	1.45	-1.44	-0.51
2,377.00	14.32	139.47	2,334.31	-296.82	213.80	-170.45	1.19	1.13	-1.64
2,471.00	12.20	139.64	2,425.79	-313.23	227.79	-182.02	2.26	-2.26	0.18
2,567.00	12.95	140.66	2,519.49	-329.28	241.17	-193.05	0.81	0.78	1.06
2,662.00	14.23	138.94	2,611.83	-346.32	255.59	-204.96	1.41	1.35	-1.81
2,756.00	14.05	140.04	2,702.98	-363.77	270.51	-217.30	0.34	-0.19	1.17
2,851.00	14.72	140.88	2,795.00	-381.98	285.53	-229.64	0.74	0.71	0.88
2,946.00	12.77	141.32	2,887.28	-399.54	299.71	-241.24	2.06	-2.05	0.46
3,042.00	12.28	143.08	2,980.99	-415.98	312.47	-251.60	0.65	-0.51	1.83
3,137.00	12.15	145.15	3,073.84	-432.27	324.26	-261.00	0.48	-0.14	2.18
3,232.00	13.21	141.32	3,166.53	-448.94	336.75	-271.06	1.42	1.12	-4.03
3,327.00	14.01	142.51	3,258.86	-466.54	350.54	-282.26	0.89	0.84	1.25
3,422.00	13.08	142.82	3,351.22	-484.23	364.03	-293.16	0.98	-0.98	0.33
3,508.00	12.05	142.52	3,435.15	-499.11	375.37	-302.33	1.20	-1.20	-0.35
SURFACE CSG - 3508' MD, 3435' TVD									
3,584.00	11.14	142.20	3,509.60	-511.21	384.70	-309.88	1.20	-1.20	-0.41
3,679.00	13.17	144.14	3,602.47	-527.23	396.67	-319.50	2.18	2.14	2.04
3,774.00	11.84	144.14	3,695.21	-543.90	408.72	-329.12	1.40	-1.40	0.00
3,868.00	13.30	146.25	3,786.96	-560.71	420.37	-338.33	1.63	1.55	2.24
3,962.00	11.45	164.54	3,878.80	-578.70	428.87	-344.24	4.59	-1.97	19.46
4,057.00	12.81	162.82	3,971.68	-597.85	434.50	-347.15	1.48	1.43	-1.81
4,151.00	15.16	159.96	4,062.89	-619.35	441.79	-351.38	2.61	2.50	-3.04
4,246.00	13.26	159.52	4,154.98	-641.23	449.86	-356.33	2.00	-2.00	-0.46
4,341.00	13.74	149.91	4,247.37	-661.20	459.33	-362.93	2.41	0.51	-10.12
4,435.00	15.69	139.25	4,338.30	-680.50	473.23	-374.01	3.54	2.07	-11.34
4,529.00	13.43	136.91	4,429.27	-698.10	488.98	-387.16	2.48	-2.40	-2.49
4,623.00	15.55	139.29	4,520.28	-715.63	504.66	-400.25	2.34	2.26	2.53
4,717.00	13.39	138.01	4,611.29	-733.27	520.16	-413.15	2.32	-2.30	-1.36
4,811.00	14.94	136.56	4,702.43	-750.16	535.77	-426.26	1.69	1.65	-1.54
4,906.00	16.75	138.85	4,793.82	-769.36	553.20	-440.85	2.02	1.91	2.41

Civitas Resources

Survey Report

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Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDM

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
5,001.00	12.99	133.78	4,885.62	-787.06	569.93	-454.95	4.18	-3.96	-5.34	
5,095.00	12.86	136.65	4,977.24	-801.98	584.74	-467.54	0.70	-0.14	3.05	
5,190.00	16.39	136.82	5,069.15	-819.44	601.17	-481.39	3.72	3.72	0.18	
5,284.00	18.29	135.54	5,158.87	-839.64	620.58	-497.80	2.06	2.02	-1.36	
5,378.00	16.62	131.98	5,248.54	-859.17	640.90	-515.21	2.11	-1.78	-3.79	
5,473.00	17.76	138.67	5,339.31	-879.14	660.58	-531.92	2.40	1.20	7.04	
5,567.00	16.39	139.51	5,429.16	-899.99	678.66	-546.92	1.48	-1.46	0.89	
5,661.00	15.47	139.55	5,519.55	-919.61	695.40	-560.77	0.98	-0.98	0.04	
5,756.00	14.89	140.97	5,611.24	-938.74	711.31	-573.87	0.73	-0.61	1.49	
5,850.00	13.96	140.39	5,702.27	-956.86	726.14	-586.04	1.00	-0.99	-0.62	
5,945.00	12.90	136.34	5,794.68	-973.36	740.77	-598.23	1.49	-1.12	-4.26	
6,039.00	16.44	136.43	5,885.60	-990.59	757.19	-612.09	3.77	3.77	0.10	
6,134.00	14.80	134.93	5,977.09	-1,008.90	775.04	-627.23	1.78	-1.73	-1.58	
6,228.00	14.76	140.39	6,067.98	-1,026.61	791.18	-640.74	1.48	-0.04	5.81	
6,323.00	12.42	138.76	6,160.31	-1,043.61	805.63	-652.69	2.50	-2.46	-1.72	
6,417.00	14.94	138.72	6,251.64	-1,060.32	820.29	-664.89	2.68	2.68	-0.04	
6,511.00	13.57	136.51	6,342.74	-1,077.43	835.88	-677.94	1.57	-1.46	-2.35	
6,606.00	15.02	139.47	6,434.80	-1,094.87	851.55	-691.03	1.71	1.53	3.12	
6,699.00	13.52	140.44	6,524.93	-1,112.42	866.30	-703.21	1.63	-1.61	1.04	
6,794.00	14.18	138.81	6,617.17	-1,129.73	881.04	-715.39	0.81	0.69	-1.72	
6,888.00	11.75	136.21	6,708.77	-1,145.31	895.25	-727.30	2.66	-2.59	-2.77	
6,983.00	12.20	135.85	6,801.70	-1,159.49	908.93	-738.88	0.48	0.47	-0.38	
7,078.00	14.23	138.94	6,894.18	-1,175.50	923.59	-751.17	2.26	2.14	3.25	
7,172.00	16.26	141.10	6,984.87	-1,194.46	939.45	-764.24	2.24	2.16	2.30	
7,267.00	14.23	139.16	7,076.52	-1,213.64	955.44	-777.40	2.20	-2.14	-2.04	
7,362.00	14.32	134.62	7,168.59	-1,230.73	971.44	-790.87	1.18	0.09	-4.78	
7,456.00	12.90	143.04	7,259.96	-1,247.28	986.02	-803.01	2.59	-1.51	8.96	
7,526.00	10.60	162.73	7,328.51	-1,259.68	992.64	-807.84	6.56	-3.28	28.13	
KOP - 7526' MD, 7329' TVD										
7,551.00	10.16	171.50	7,353.10	-1,264.06	993.64	-808.23	6.56	-1.77	35.07	
7,644.00	16.35	228.26	7,443.93	-1,280.97	985.05	-797.36	14.68	6.66	61.03	
7,739.00	22.05	249.72	7,533.71	-1,296.08	958.29	-768.76	9.46	6.00	22.59	
7,833.00	27.93	263.60	7,618.95	-1,304.66	919.79	-729.45	8.80	6.26	14.77	
7,928.00	34.73	264.66	7,700.05	-1,309.67	870.68	-680.12	7.18	7.16	1.12	
8,023.00	40.48	260.30	7,775.29	-1,317.39	813.28	-622.20	6.67	6.05	-4.59	
8,117.00	49.58	258.54	7,841.66	-1,329.67	748.00	-555.85	9.77	9.68	-1.87	
8,212.00	56.65	258.85	7,898.64	-1,344.54	673.54	-480.04	7.45	7.44	0.33	
8,306.00	63.68	265.37	7,945.42	-1,355.56	592.86	-398.61	9.59	7.48	6.94	
8,401.00	73.18	271.01	7,980.33	-1,358.20	504.70	-310.94	11.42	10.00	5.94	
8,474.16	79.85	269.72	7,997.38	-1,357.76	433.60	-240.59	9.28	9.12	-1.76	
~150' X-OVER PNT - 8474.16' MD, 7997' TVD, 1763' FSL, 150' FEL SEC 35										
8,494.00	81.66	269.38	8,000.57	-1,357.92	414.02	-221.18	9.28	9.12	-1.71	
8,548.00	86.06	269.58	8,006.34	-1,358.40	360.34	-167.96	8.16	8.15	0.37	
HZ LANDING PNT - 8548' MD, 8006' TVD										

Civitas Resources

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Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDM

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,589.00	89.40	269.73	8,007.97	-1,358.65	319.38	-127.36	8.16	8.15	0.37
8,683.00	88.38	270.66	8,009.79	-1,358.33	225.40	-34.34	1.47	-1.09	0.99
8,778.00	89.04	268.06	8,011.93	-1,359.39	130.44	59.85	2.82	0.69	-2.74
8,872.00	88.82	267.88	8,013.68	-1,362.72	36.52	153.32	0.30	-0.23	-0.19
8,967.00	88.78	267.44	8,015.67	-1,366.60	-58.38	247.84	0.46	-0.04	-0.46
9,061.00	88.11	266.56	8,018.22	-1,371.52	-152.22	341.45	1.18	-0.71	-0.94
9,155.00	89.57	269.51	8,020.12	-1,374.74	-246.13	434.89	3.50	1.55	3.14
9,251.00	90.72	270.48	8,019.88	-1,374.74	-342.13	529.96	1.57	1.20	1.01
9,346.00	89.35	270.30	8,019.82	-1,374.10	-437.12	623.94	1.45	-1.44	-0.19
9,440.00	89.35	269.95	8,020.89	-1,373.89	-531.12	716.99	0.37	0.00	-0.37
9,535.00	89.35	271.01	8,021.97	-1,373.10	-626.11	810.95	1.12	0.00	1.12
9,630.00	88.64	270.52	8,023.63	-1,371.83	-721.08	904.83	0.91	-0.75	-0.52
9,725.00	88.86	269.77	8,025.71	-1,371.59	-816.06	998.85	0.82	0.23	-0.79
9,819.00	89.00	270.04	8,027.46	-1,371.74	-910.04	1,091.94	0.32	0.15	0.29
9,915.00	88.47	269.33	8,029.58	-1,372.27	-1,006.02	1,187.05	0.92	-0.55	-0.74
10,010.00	88.56	269.20	8,032.04	-1,373.49	-1,100.98	1,281.26	0.17	0.09	-0.14
10,104.00	87.41	268.50	8,035.35	-1,375.38	-1,194.90	1,374.53	1.43	-1.22	-0.74
10,199.00	88.95	269.16	8,038.37	-1,377.31	-1,289.83	1,468.81	1.76	1.62	0.69
10,293.00	90.59	269.64	8,038.74	-1,378.30	-1,383.82	1,562.02	1.82	1.74	0.51
10,388.00	91.07	270.52	8,037.37	-1,378.17	-1,478.81	1,656.07	1.06	0.51	0.93
10,482.00	90.99	268.54	8,035.68	-1,378.94	-1,572.78	1,749.24	2.11	-0.09	-2.11
10,577.00	89.70	269.07	8,035.10	-1,380.92	-1,667.76	1,843.57	1.47	-1.36	0.56
10,671.00	89.93	269.33	8,035.41	-1,382.23	-1,761.75	1,936.83	0.37	0.24	0.28
10,766.00	89.88	268.54	8,035.57	-1,384.00	-1,856.73	2,031.14	0.83	-0.05	-0.83
10,861.00	89.75	267.84	8,035.87	-1,387.00	-1,951.68	2,125.58	0.75	-0.14	-0.74
10,955.00	88.51	268.89	8,037.30	-1,389.68	-2,045.63	2,218.99	1.73	-1.32	1.12
11,050.00	88.56	269.69	8,039.73	-1,390.86	-2,140.59	2,313.19	0.84	0.05	0.84
11,144.00	88.33	269.25	8,042.28	-1,391.72	-2,234.55	2,406.36	0.53	-0.24	-0.47
11,239.00	88.64	271.85	8,044.79	-1,390.81	-2,329.51	2,500.27	2.76	0.33	2.74
11,333.00	88.56	271.89	8,047.09	-1,387.75	-2,423.43	2,592.85	0.10	-0.09	0.04
11,428.00	90.32	271.58	8,048.02	-1,384.87	-2,518.38	2,686.47	1.88	1.85	-0.33
11,523.00	90.37	270.96	8,047.44	-1,382.76	-2,613.35	2,780.23	0.65	0.05	-0.65
11,617.00	90.46	270.26	8,046.76	-1,381.76	-2,707.34	2,873.17	0.75	0.10	-0.74
11,712.00	91.03	270.04	8,045.53	-1,381.52	-2,802.33	2,967.21	0.64	0.60	-0.23
11,807.00	89.48	270.39	8,045.11	-1,381.16	-2,897.33	3,061.23	1.67	-1.63	0.37
11,901.00	88.86	269.91	8,046.47	-1,380.91	-2,991.32	3,154.27	0.83	-0.66	-0.51
11,995.00	89.00	268.41	8,048.22	-1,382.29	-3,085.29	3,247.52	1.60	0.15	-1.60
12,089.00	89.09	267.44	8,049.79	-1,385.69	-3,179.21	3,341.01	1.04	0.10	-1.03
12,184.00	91.78	272.55	8,049.07	-1,385.70	-3,274.17	3,435.04	6.08	2.83	5.38
12,279.00	90.99	272.07	8,046.77	-1,381.87	-3,369.06	3,528.48	0.97	-0.83	-0.51
12,374.00	90.23	272.07	8,045.76	-1,378.44	-3,464.00	3,622.01	0.80	-0.80	0.00
12,470.00	88.64	271.93	8,046.71	-1,375.09	-3,559.93	3,716.55	1.66	-1.66	-0.15
12,565.00	88.03	272.51	8,049.47	-1,371.42	-3,654.82	3,810.01	0.89	-0.64	0.61

Civitas Resources

Survey Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well STATE BIERSTADT 4-65 35-34 3BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5895.00usft
Site:	SEC 35-T4S-R65W	MD Reference:	KB 25' @ 5895.00usft
Well:	STATE BIERSTADT 4-65 35-34 3BH	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDM

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
12,658.00	88.91	271.67	8,051.95	-1,368.02	-3,747.72	3,901.53	1.31	0.95	-0.90	
12,753.00	88.38	271.27	8,054.20	-1,365.59	-3,842.66	3,995.22	0.70	-0.56	-0.42	
12,848.00	89.35	269.73	8,056.08	-1,364.76	-3,937.64	4,089.15	1.92	1.02	-1.62	
12,943.00	89.48	274.71	8,057.05	-1,361.08	-4,032.53	4,182.61	5.24	0.14	5.24	
13,037.00	90.23	276.30	8,057.29	-1,352.06	-4,126.09	4,274.01	1.87	0.80	1.69	
13,131.00	88.47	269.38	8,058.35	-1,347.41	-4,219.91	4,366.27	7.60	-1.87	-7.36	
13,226.00	88.03	269.20	8,061.26	-1,348.59	-4,314.86	4,460.46	0.50	-0.46	-0.19	
13,320.00	87.80	268.50	8,064.68	-1,350.47	-4,408.78	4,553.73	0.78	-0.24	-0.74	
13,415.00	89.40	269.16	8,067.00	-1,352.41	-4,503.72	4,648.02	1.82	1.68	0.69	
13,511.00	89.53	269.07	8,067.89	-1,353.89	-4,599.71	4,743.28	0.16	0.14	-0.09	
13,605.00	88.64	267.00	8,069.39	-1,357.11	-4,693.64	4,836.74	2.40	-0.95	-2.20	
13,699.00	88.86	267.75	8,071.45	-1,361.42	-4,787.51	4,930.31	0.83	0.23	0.80	
13,794.00	88.11	268.45	8,073.96	-1,364.57	-4,882.43	5,024.74	1.08	-0.79	0.74	
13,888.00	88.73	268.54	8,076.55	-1,367.04	-4,976.36	5,118.10	0.67	0.66	0.10	
13,984.00	89.79	269.91	8,077.79	-1,368.33	-5,072.34	5,213.33	1.80	1.10	1.43	
14,079.00	89.79	269.47	8,078.14	-1,368.85	-5,167.34	5,307.47	0.46	0.00	-0.46	
14,173.00	88.86	267.70	8,079.24	-1,371.17	-5,261.30	5,400.84	2.13	-0.99	-1.88	
14,268.00	89.62	269.33	8,080.50	-1,373.63	-5,356.25	5,495.22	1.89	0.80	1.72	
14,363.00	90.63	271.49	8,080.30	-1,372.95	-5,451.24	5,589.19	2.51	1.06	2.27	
14,458.00	90.46	270.13	8,079.39	-1,371.61	-5,546.23	5,683.07	1.44	-0.18	-1.43	
14,553.00	91.03	269.99	8,078.16	-1,371.51	-5,641.22	5,777.12	0.62	0.60	-0.15	
14,648.00	90.81	269.38	8,076.63	-1,372.03	-5,736.20	5,871.26	0.68	-0.23	-0.64	
14,742.00	91.12	269.38	8,075.05	-1,373.05	-5,830.18	5,964.47	0.33	0.33	0.00	
14,837.00	91.69	268.32	8,072.72	-1,374.95	-5,925.13	6,058.76	1.27	0.60	-1.12	
14,931.00	89.48	270.43	8,071.76	-1,375.98	-6,019.11	6,151.97	3.25	-2.35	2.24	
15,027.00	90.28	270.13	8,071.96	-1,375.51	-6,115.11	6,246.97	0.89	0.83	-0.31	
15,121.00	88.64	270.83	8,072.85	-1,374.72	-6,209.10	6,339.93	1.90	-1.74	0.74	
15,215.00	89.44	271.10	8,074.42	-1,373.14	-6,303.07	6,432.77	0.90	0.85	0.29	
15,310.00	89.48	269.55	8,075.32	-1,372.60	-6,398.06	6,526.77	1.63	0.04	-1.63	
15,405.00	90.32	270.74	8,075.48	-1,372.36	-6,493.06	6,620.81	1.53	0.88	1.25	
15,500.00	88.03	271.89	8,076.85	-1,370.18	-6,588.02	6,714.54	2.70	-2.41	1.21	
15,594.00	87.01	270.30	8,080.92	-1,368.38	-6,681.91	6,807.27	2.01	-1.09	-1.69	
15,690.00	89.13	271.32	8,084.15	-1,367.03	-6,777.84	6,902.08	2.45	2.21	1.06	
15,784.00	89.84	270.96	8,085.00	-1,365.16	-6,871.81	6,994.88	0.85	0.76	-0.38	
15,879.00	89.70	270.13	8,085.38	-1,364.25	-6,966.81	7,088.83	0.89	-0.15	-0.87	
15,974.00	90.54	270.39	8,085.18	-1,363.82	-7,061.81	7,182.84	0.93	0.88	0.27	
16,068.00	88.78	270.13	8,085.74	-1,363.40	-7,155.80	7,275.86	1.89	-1.87	-0.28	
16,164.00	88.60	269.38	8,087.93	-1,363.81	-7,251.77	7,370.96	0.80	-0.19	-0.78	
16,259.00	88.20	268.89	8,090.58	-1,365.24	-7,346.72	7,465.19	0.67	-0.42	-0.52	
16,353.00	89.00	270.04	8,092.88	-1,366.12	-7,440.69	7,558.36	1.49	0.85	1.22	
16,448.00	89.26	269.47	8,094.32	-1,366.52	-7,535.68	7,652.49	0.66	0.27	-0.60	
16,543.00	89.44	268.58	8,095.40	-1,368.14	-7,630.66	7,746.77	0.96	0.19	-0.94	
16,637.00	90.19	270.92	8,095.71	-1,368.55	-7,724.65	7,839.90	2.61	0.80	2.49	
16,732.00	90.63	270.92	8,095.03	-1,367.02	-7,819.63	7,933.75	0.46	0.46	0.00	

Civitas Resources

Survey Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well STATE BIERSTADT 4-65 35-34 3BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5895.00usft
Site:	SEC 35-T4S-R65W	MD Reference:	KB 25' @ 5895.00usft
Well:	STATE BIERSTADT 4-65 35-34 3BH	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDM

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
16,827.00	90.10	265.98	8,094.42	-1,369.59	-7,914.57	8,028.12	5.23	-0.56	-5.20
16,921.00	89.57	263.56	8,094.69	-1,378.16	-8,008.17	8,122.00	2.64	-0.56	-2.57
17,017.00	88.47	264.31	8,096.33	-1,388.30	-8,103.61	8,217.93	1.39	-1.15	0.78
17,112.00	88.60	268.94	8,098.76	-1,393.89	-8,198.39	8,312.57	4.87	0.14	4.87
17,207.00	89.88	270.30	8,100.02	-1,394.52	-8,293.38	8,406.72	1.97	1.35	1.43
17,302.00	88.16	271.05	8,101.65	-1,393.40	-8,388.35	8,500.62	1.98	-1.81	0.79
17,396.00	88.33	270.79	8,104.53	-1,391.89	-8,482.30	8,593.44	0.33	0.18	-0.28
17,491.00	88.47	270.26	8,107.18	-1,391.02	-8,577.26	8,687.35	0.58	0.15	-0.56
17,585.00	88.38	272.33	8,109.76	-1,388.90	-8,671.19	8,780.08	2.20	-0.10	2.20
17,680.00	88.38	270.39	8,112.45	-1,386.65	-8,766.12	8,873.78	2.04	0.00	-2.04
17,774.00	88.38	272.07	8,115.11	-1,384.63	-8,860.06	8,966.52	1.79	0.00	1.79
17,869.00	90.28	272.64	8,116.22	-1,380.73	-8,954.97	9,059.96	2.09	2.00	0.60
17,964.00	90.90	272.24	8,115.24	-1,376.68	-9,049.88	9,153.39	0.78	0.65	-0.42
18,059.00	91.03	271.85	8,113.64	-1,373.29	-9,144.80	9,246.92	0.43	0.14	-0.41
18,154.00	89.93	271.76	8,112.84	-1,370.30	-9,239.75	9,340.53	1.16	-1.16	-0.09
18,249.00	88.25	272.90	8,114.35	-1,366.44	-9,334.65	9,433.98	2.14	-1.77	1.20
18,344.00	87.67	273.03	8,117.73	-1,361.53	-9,429.47	9,527.18	0.63	-0.61	0.14
18,439.00	86.83	271.85	8,122.29	-1,357.49	-9,524.27	9,620.50	1.52	-0.88	-1.24
LAST SURVEY - 18439' MD, 8122' TVD									
18,556.00	86.83	271.85	8,128.76	-1,353.72	-9,641.03	9,735.60	0.00	0.00	0.00
PTB - 18556' MD, 8129' TVD, 1726' FSL, 331' FWL SEC 34									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LP-ST BIERSTADT 4-65	0.00	0.00	8,010.00	-1,390.75	433.60	1,665,592.05	3,246,942.89	39.657574°N	104.622911°W
- hit/miss target									
- Shape									
- actual wellpath misses target center by 35.24usft at 8476.44usft MD (7997.78 TVD, -1357.77 N, 431.35 E)									
- Point									
PBHL-ST BIERSTADT 4	0.00	0.00	8,115.00	-1,349.23	-9,641.91	1,665,536.47	3,236,867.61	39.657683°N	104.658696°W
- hit/miss target									
- Shape									
- actual wellpath misses target center by 14.50usft at 18556.00usft MD (8128.76 TVD, -1353.72 N, -9641.03 E)									
- Point									

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
3,508.00	3,435.15	-499.11	375.37	SURFACE CSG - 3508' MD, 3435' TVD	
7,526.00	7,328.51	-1,259.68	992.64	KOP - 7526' MD, 7329' TVD	
8,474.16	7,997.38	-1,357.76	433.60	~150' X-OVER PNT - 8474.16' MD, 7997' TVD, 1763' FSL, 150' FEL SEC 35	
8,548.00	8,006.34	-1,358.40	360.34	HZ LANDING PNT - 8548' MD, 8006' TVD	
18,439.00	8,122.29	-1,357.49	-9,524.27	LAST SURVEY - 18439' MD, 8122' TVD	
18,556.00	8,128.76	-1,353.72	-9,641.03	PTB - 18556' MD, 8129' TVD, 1726' FSL, 331' FWL SEC 34	

Civitas Resources
Survey Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well STATE BIERSTADT 4-65 35-34 3BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5895.00usft
Site:	SEC 35-T4S-R65W	MD Reference:	KB 25' @ 5895.00usft
Well:	STATE BIERSTADT 4-65 35-34 3BH	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDM

Checked By:	_____	Approved By:	_____	Date:	_____
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